

CLAIMS

1. A process for preparing calcium carbonate which is useful as a paper filler in the causticization step of the sulfate or soda pulp process, comprising:

a first step of (a) adding a white liquor to a quick lime generated in said causticization step and/or introduced from the outside of said step and containing 0.1 to 10% by weight of calcium carbonate on the basis of the weight of the quick lime up to a concentration of said quick lime of 0.5 to 60% by weight on the basis of the weight of said quick lime before slaking or (b) adding a green liquor to said quick lime up to a concentration of said quick lime of 20 to 60% by weight on the basis of the weight of said quick lime before slaking, and slaking said quick lime with stirring or kneading to prepare a milk or slurry of lime, and then

a second step of subjecting said milk and/or slurry of lime to causticization reaction at a reaction temperature of 20 to 105°C by sequentially adding a green liquor generated in said causticization step in a given amount necessary for preparing a white liquor at a loading rate of 0.02 to 0.5 cc (green liquor) /min/g (quick lime).

2. The process of Claim 1 wherein said step (a) is used.

3. The process of Claim 1 wherein said step (b) is used.

4. Calcium carbonate which is useful as a paper filler or a coating pigment for coated papers and which is prepared by the process of Claim 1.

5. Calcium carbonate which has a spindle- or rice-like

shape having a minor diameter of 0.3 to 1.5 μm and a major diameter of 0.5 to 7 μm and which is prepared by the process of Claim 1.

6. A coating composition which uses the calcium carbonate of Claim 4 as a coating pigment.

7. A paper or coated paper wherein the calcium carbonate of Claim 4 is used as a paper filler or a coating pigment.

8. The process of Claim 1 wherein the quick lime used during the slaking reaction of the first step is the calcination product of a limestone based on calcium carbonate and/or calcium carbonate generated during conversion of sodium carbonate into sodium hydroxide in the causticization step of the sulfate or soda pulp process.